

REMARKS

The Office Action indicated that the subject matter of Claims 3-9 and 13-24 would be allowed if rewritten in independent form. The allowed claims acknowledged that the prior art failed to establish a current suppressing unit on a current path of the starting wire as set forth in our claims. Applicant requests that the redrafting of this allowed subject matter be held in abeyance until the following remarks are considered.

Currently, applicant has redrafted the independent Claims 1 and 10 in a manner which is believed to be consistent with an indication of allowed subject matter in the present application.

The Office Action rejected the original Claims 1, 2 and 10 are completely anticipated by the *Iida et al* (U.S. Patent No. 4,520,294) while contending that Claims 11 and 12 would be obvious over the *Iida et al* reference. The *Iida et al* reference discloses a number of embodiments of a high pressure metal vapor discharge lamp to purportedly stabilize the starting characteristics of the lamp.

The Office Action particularly identified an embodiment shown in Figures 10 and 11 where a circuit breaking unit 17 was disclosed on a current path of a proximity conductor 15 mounted on the outer wall of the light emitting tube. In the embodiment of Figure 11, the proximity conductor is wrapped around the light emitting tube and a thermo sensitive switch 17 is moved away from the outer wall and functions as being in either an ON state or an OFF state. That is, "the circuit for supplying the potential of the proximity conductor 15 is cut off by a thermo sensitive switch 17." See Column 7, Lines 6-8.

As can be readily appreciated, the thermo sensitive switch 17 of the *Iida et al* reference and the current limiting unit of the present invention perform different operations and, therefore, the thermo sensitive switch is not equivalent to the current limiting unit of the present invention.

In this regard, by limiting the current value, the flow of current is not completely stopped but is reduced in our present invention, as defined in amended Claim 1.

In amended Claim 10, the circuit breaking element that cuts current to the starting wire within a predetermined amount of time of an outer tube discharge is defined wherein the discharge occurs between electrodes in the arc tube and the exterior starting wire. When a large current flows through the starting wire due to outer tube discharge, the current is cut by the circuit breaking element, thereby preventing any abnormal heat and a consequent breakage of the outer tube. Additionally, such a large current will be prevented from flowing through any external circuits such as the ballast, and therefore, further damage of each of these external circuits can also be prevented. Note that the "outer tube discharge" recited in amended Claim 10 of the present application refers to "abnormal discharge," as set forth "Note that this abnormal discharge is also called outer tube discharge" in the Specification (p. 4, l. 3-4).

The *Iida et al* reference simply discloses a thermo sensitive switch 17 that functions when the lamp is turned on, that is put into an ON state that connects a proximity conductor 15 (starting wire) and a starting circuit. When the proximity conductor has subsequently completed its role as a starting wire, that is, after a predetermined time period, it is then placed into an OFF state that cuts an electrical connection with the starting circuit. Thus, the thermo sensitive switch 17 simply cuts the current within a predetermined time period. It does not cut the current in response to generation of an abnormal discharge as set forth in the circuit breaking element now defined in amended Claim 10.

Utilization of the thermo sensitive switch 17 in the *Iida et al* reference is not similar, nor does it perform the same advantageous effect as defined in our claims.

"Most if not all inventions arise from a combination of old elements . . . Thus, every element of a claimed invention may often be found in the prior art . . . However, identification in the prior art of each individual part claimed is insufficient to defeat patentability of the whole claimed invention. . . Rather, to establish obviousness based on a combination of elements disclosed in the prior art, there must be some motivation, suggestion or teaching of the desirability of making the specific combination that was made by the applicant. . . Even when obviousness is based on a single reference, there must be a showing of a suggestion or motivation to modify the teachings of that reference. . . The motivation, suggestion or teaching may come explicitly from statements in the prior art, the knowledge of one of ordinary skill in the art, or, in some cases the nature of the problem to be solved. . ."

In re Kotzab, 55 USPQ2d, 1313 (Fed. Cir. 2000)

It is obviously possible to arrange numerous known individual electronic components in different combinations. However, it is the manner in which they co-operate and produce a desired result which can be patentable. The *Iida et al* reference, while showing a momentary high voltage pulse in Figure 6, does not address the problem solved by the present invention, namely an abnormal discharge between the internal electrodes and the exterior starting wire due to breakage of the arc tube. Additionally, the operation of the thermo sensitive switch 17 as employed by the *Iida et al* reference is not activated to cut current in response to the generation of an abnormal discharge. Therefore, the teaching of the *Iida et al* of a metal halide lamp does not have the effect of preventing breakage of the outer tube and preventing breakage or damage to external circuits such as the ballast.

In reviewing the problem addressed and resolved by the present inventors as compared to the *Iida et al* reference, it becomes readily apparent that our invention is neither anticipated nor rendered obvious by this reference.

In *Orthopedic Co., Inc. v. United States*, 217 USQP 193 (C.A.F.C. 1983), the Federal Circuit set forth a useful guide for determining the scope and content of the prior art. *Orthopedic*, at pages 196-197, also focuses on the "problem" faced by the inventors:

In determining the relevant art. . . one looks at the nature of the problem confronting the inventor.

* * *

[W]ould it then be nonobvious to this person of ordinary skill in the art to coordinate these elements in the same manner as the claims in suit? The difficulty which attaches to all honest attempts to answer this question can be attributed to the strong temptation to rely on hindsight while undertaking this evaluation. It is wrong to use the patent in suit [the patent application before the Examiner] as a guide through the maze of prior art references, combining the right references in the right way so as to achieve the result of the claims in suit. Monday morning quarterbacking is quite improper when resolving the question of nonobviousness. (Emphasis added)

In summary, it is believed that the current claims pending in our application are now in condition for allowance and early notification of the same is requested.

If the Examiner believes a telephone interview will help further the prosecution of this case, it is respectfully requested that the undersigned attorney be contacted at the listed phone number.

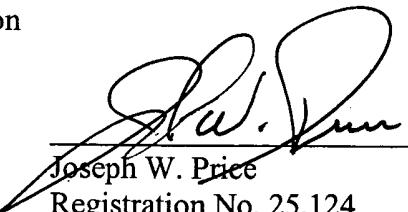
I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on December 19, 2005.

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Signature

Dated: December 19, 2005

Very truly yours,

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